

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: BARRACLOUGH *et al.*      Examiner: Van Handel, M.  
Serial No.: 09/740,263      Group Art Unit: 2424  
Filed: December 18, 2000      Docket No.: 8X8S.223PA  
Title: NETWORK INTERFACE UNIT CONTROL SYSTEM AND  
METHOD THEREFOR

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REPLY BRIEF

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Commissioner For Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Customer No.  
**40581**

Dear Sir:

This is a Reply Brief submitted pursuant to 37 C.F.R. § 41.41(a)(1) for the above-referenced patent application. This Reply Brief is submitted in response to the Examiner's Answer dated March 29, 2010.

Authorization is given to charge/credit **Deposit Account 50-0996 (8X8S.223PA)** all required fees/overages to enter this paper.

**I. Status of Claims**

Claims 1-75 stand rejected and are presented for appeal.

**II. Grounds of Rejection**

The grounds of rejection to be reviewed on appeal are as follows:

- A. Claims 1, 2, 4, 6, 8-16, 21, 23-28, 30, 32-36, 42-49, 51, 53-59, 63-66, 68, 70 and 74 stand rejected under 35 U.S.C. § 103(a) over Hamlin (U.S. Patent No. 5,574,964) in view of Ellis *et al.* (U.S. Patent Publication No. 2005/0251827).
- B. Claims 3 and 5 stand rejected under 35 U.S.C. § 103(a) over Hamlin (U.S. Patent No. 5,574,964) in view of Ellis *et al.* (U.S. Patent Publication No. 2005/0251827), and in further view of Edson (U.S. Patent No. 6,526,581).
- C. Claims 7, 22, 29, 31, 37-41, 67 and 75 stand rejected under 35 U.S.C. § 103(a) over Hamlin (U.S. Patent No. 5,574,964) in view of Ellis *et al.* (U.S. Patent Publication No. 2005/0251827), and in further view of Edens *et al.* (U.S. Patent No. 6,611,537).
- D. Claims 17-19, 52 and 60-62 stand rejected under 35 U.S.C. § 103(a) over Hamlin (U.S. Patent No. 5,574,964) in view of Ellis *et al.* (U.S. Patent Publication No. 2005/0251827), and in further view of Cohen *et al.* (U.S. Patent No. 4,837,798).
- E. Claims 20 and 50 stand rejected under 35 U.S.C. § 103(a) over Hamlin (U.S. Patent No. 5,574,964) in view of Ellis *et al.* (U.S. Patent Publication No. 2005/0251827), and in further view of Goldstein (U.S. Patent No. 5,410,326).
- F. Claims 69 and 71-73 stand rejected under 35 U.S.C. § 103(a) over Hamlin (U.S. Patent No. 5,574,964) in view of Ellis *et al.* (U.S. Patent Publication No. 2005/0251827), and further in view of Lewis (U.S. Patent No. 5,835,126).
- G. Claims 3 and 5 stand rejected under 35 U.S.C. § 112(1).

**III. Appellant's Reply Argument**

A review of the issues presented in connection with the instant Appeal should clearly reveal that there are differences between how the prior art functions and Appellant's noted claim limitations. Moreover, the Examiner's Answer includes newly-presented interpretations and arguments, many of which are inaccurate. This suggests that the Examiner has reached a predetermined conclusion that is not in accord with the specific

evidence of record. For example, despite the evidence suggesting that the prior art uses significantly different formatting and transmission techniques and lacks the ability to convert incoming formats so that they can be used by different appliances (as may be relevant to embodiments relating to an ubiquitous communication solution), the Examiner has maintained the rejections.

To provide a general overview and to facilitate review efforts, Appellant first provides a set of relevant facts that are not believed to be in dispute and then provides examples of inaccuracies with the Examiner's statements as they apply to particular claims. To the extent that the claim groupings differ from those of the Appeal Brief, Appellant submits that the new groupings arise from the newly-presented arguments and the associated new grounds for rejection believed to be present in the Examiner's Answer.

**Relevant Facts:**

- The primary '964 reference's system assigns each pod a frequency; each pod then tunes to the assigned frequency to receive the appropriate data.
- The primary '964 reference does not teach that any particular frequency is assigned for any particular reason.
- The primary '964 reference's converter (34) converts input signals to a common format and transmits the converted input signals on a common bus consistent with the assigned frequencies.
- The primary '964 reference's common format is the same regardless of the format required by the end appliance.
- The primary '964 reference's pods convert the transmissions from the common format back to the original format of the input signals.

The Examiner's rejections rely upon the following statements, each of which is believed to be inaccurate and render the rejections improper.

**The Examiner's Answer (pp. 41-42), regarding claims 1-42, is improper because the capability of a particular pod is not limited to a currently-tuned frequency.**

The Examiner's grounds of rejection require that the Board adopt a claim interpretation for the term "capabilities" that is contrary to the plain meaning of the term and that ignores the contextual use of the term as would be understood by the skilled artisan. Various limitations of the present claims are directed towards configurations based upon the capabilities of the particular one of the appliances. Embodiments of the present invention allow for various types of media/data/content to be routed to appliances with differing capabilities. For instance, emails or other types of text can be sent to their television set (provided as video or audio), their telephone (provided as audio) or their computer (provided as data). The primary '964 reference, whether alone or modified, has no such appliance capability-based conversion and instead simply converts all data to a common transmission format. This common transmission format uses different frequencies to address each pod. The received data is then converted back to the original format.

Appellant presented arguments consistent with the above discussion throughout prosecution and in the underlying Appeal Brief. The Examiner's Answer appears to acknowledge the deficiencies in the rejection, and in an apparent attempt to salvage the rejection, the Examiner's Answer presents a new argument. This new argument erroneously aligns assigned frequencies of the pods to the capabilities of the pods. In doing so, the Examiner has attempted to define the capabilities of the pod as being limited to a specific, temporary configuration thereof. In essence, the Examiner is arguing that when a pod tunes to a specific frequency, it becomes incapable of also tuning to other frequencies and therefore frequency-based conversion is somehow premised upon the capabilities of the pod. This interpretation, however, goes against common usage and is also not a reasonable interpretation that would have been reached by the skilled artisan. The skilled artisan would not have arrived at such an interpretation for the same reason that the skilled artisan would not state that an FM radio was incapable of receiving a particular FM frequency simply because it was temporarily tuned to a different frequency.

Moreover, particular frequency used is independent of particular capabilities of the pod because each pod is capable of receiving all of the possible frequencies. Thus, the

Examiner has failed to show that there is any correlation between an appliance's capabilities and the selected format. Instead, the primary '964 reference's system uses a protocol that is, for all intents and purposes, independent of any external factors, such as the capabilities of an associated appliance. While frequencies are assigned to pods and the pods are then configured accordingly, this assignment of frequencies has not been shown to be premised upon any correlation to the capabilities of the appliances. Instead, the frequencies are only taught to be different for different pods. Appellant submits that the Examiner's claim interpretation is contrary to the plain meaning, which includes aspects directed towards the correlation between the formatting (*e.g.*, frequency assignment) and the capabilities of the appliances.

Moreover, the Examiner's logic is circular. The pods are taught to be tuned to a frequency based upon a frequency being assigned thereto. Thus, the assigned frequency is not premised upon the capabilities of the pod, rather the tuning of the pod is premised upon the assigned frequency.

Accordingly, there are two proposed definitions for the relevant claim limitations. The Examiner's interpretation requires that one interpret the capabilities of a device to exclude any capabilities other than those of a temporarily tuned channel. Appellant's interpretation is consistent with conventional usage (*e.g.*, an FM radio tuned to a particular channel still has the capability of receiving other channels). When presented with alternative interpretations, the plain meaning should be used (absent an express redefinition by an applicant). *See, e.g.*, M.P.E.P. 2111.01. Given the plain meaning of the term, relative to the skilled artisan, the Examiner's newly-presented interpretation represents a clear attempt to redefine common understanding of terminology in a manner that conveniently supports a conclusion reached earlier in prosecution. The rejections should be reversed based upon this improper redefinition attempt.

**The Examiner's Answer (pp. 42-43), regarding claims 2, 4 and 16, is improper because the use of a coaxial cable/common bus does not necessarily/inherently require conversion to a non-packet based format.**

The Examiner's rejection requires that the Board find that packet-based communications cannot be sent over a coaxial cable or over a common bus. This is, however, clearly erroneous. The medium (*e.g.*, a common bus or coaxial cable) is not determinative of whether a communication is packet based. Packet-based communications are commonly carried out using a number of one-to-one communication links between devices. Consistent with the Open System Interconnection (OSI) model, the particular communication protocol carried out between each link can be substantially (or completely) independent of the packets themselves. For example, the packetization can be implemented at the transport level, whereas specific transport medium and associated protocols are defined at the physical level. Thus, a packet-based communication will remain packet-based independent of changes to the transport medium. The Examiner presents no evidence for the conclusions otherwise, and the Examiner's conclusions regarding coaxial cable requiring non-packet communications is contradicted by many well-known uses of coaxial cables in packet-based communications. A search of the USPTO databases, *e.g.*, using key words for cable television ("CATV") and "packet," would confirm that the Examiner's conclusion is incorrect.

Accordingly, the Examiner's arguments and rejections, regarding aspects relating to packets, are premised upon misstatements and/or technical inaccuracies. For instance, the Examiner has made conclusions about the existence of packets based upon the transport medium (*e.g.*, coaxial cable) and/or the physical-level protocols. The Examiner's conclusion regarding packet-based networks and connections/protocols are not supported by evidence. Moreover, this newly-presented argument is evidence that the Examiner has recognized problems with the basis for the rejection and is now trying to find new evidence to support the existing/predetermined conclusion. This is contrary to the proper standard of review, which involves weighing all factors and evidence and only then arriving at a conclusion. The Examiner's conclusion appears to be premised upon an unsupported opinion as to the technical aspects of communications protocols (packetized or otherwise). Appellant

challenges this conclusion and submits that the absence of supporting evidence requires that the rejections be reversed.

**The Examiner's Answer (p. 47), regarding claim 3, is improper because the use of a packet-switched network does not necessarily require that all transmissions be on common frequencies.**

The Examiner's rejection requires that the Board hold that packet-switched networks can only be implemented using a common frequency. As discussed above, the particular transport medium is not determinative of whether or not a communication is packet-based. Moreover, the particular frequency at which each transmission is sent is also not determinative. The Examiner's conclusion appears to be premised upon an unsupported opinion as to the technical aspects of communications protocols (packetized or otherwise). Appellant challenges this conclusion and submits that the absence of supporting evidence requires that the rejections be reversed.

**The Examiner's Answer (p. 47), regarding claims 3 and 5, is improper because the gateway of the '581 reference does not convert between telephones, computers, appliances, alarm systems, and video and audio entertainment systems.**

The Examiner's rejection requires the Board find that the gateway of the '581 reference converts between telephones, computers, appliances, alarm systems, and video and audio entertainment systems. The teachings of the '581 reference, however, do not support this finding. The gateway of the '581 reference functions like the primary '964 reference in that it uses a common format (e.g., HPNA) to communicate with each of the devices. *See, e.g.*, the '581 reference, Col. 7:64-8:11. Thus, the gateway of the '581 reference does not convert between the various items listed by the Examiner. Accordingly, the Examiner's basis for the rejection relies upon an improper interpretation of the teachings of at least the '581 reference and there is not sufficient evidence to maintain the rejection. The rejections should therefore be reversed.

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**The Examiner's Answer (p. 47), regarding claims 3 and 5, is improper because the gateway of the '581 reference does not convert "between telephones, computers, appliances, alarm systems, and video and audio entertainment systems."**

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**The Examiner's Answer (p. 49), regarding claims 7, 22, 29, 31, 37-41, 67 and 75 is improper because the primary '964 reference does not teach "a telephone connection over the coaxial bus" simply because it "receives stock reports over a telephone line."**

The Examiner's rejection requires that the Board hold that the transmission of stock data is sufficient to render telephone-based communications/applications obvious. The relevant portion of the '964 reference (Col. 5:64-6:7) teaches that stock data is retrieved over the Internet, stored and subsequently displayed. While a modem can be used to retrieve the data over telephone lines, this is unrelated to the internal protocols and (coaxial) bus of the primary '964 reference. Passing stored stock data, retrieved from the Internet, does not conform to a reasonable interpretation of a telephone connection. Simply because a telephone line might once have been used to retrieve data, all subsequent transmissions of the retrieved data are not rendered telephone connections. For instance, the '964 reference teaches that the stock data is provided to the user using a television-type display rather than over a telephone.

Accordingly, the Examiner has reached improper conclusions regarding a host of different telephone functions with little support other than mention of a modem for accessing the Internet to download stock data. The correlation between subsequent transmittal of such downloaded stock data and telephone functions/connections is virtually nonexistent. This, however, has not kept the Examiner from using it as the basis for any number of conclusions ranging from the use of DTMF signaling, to establishing telephone connections and to Caller ID. Accordingly, there is insufficient evidence to maintain the rejections and they should be reversed.

**The Examiner's Answer (pp. 49-50), regarding claim 22, is improper because the retrieval of stock data over the Internet does not imply Caller ID and/or stored stock data, retrieved from the Internet is not telephone data that is relevant to Caller ID.**

The Examiner's rejection requires that the Board hold that transmission of stock data would be relevant to Caller ID. Caller ID has not been shown to relate to the relevant portion of the '964 reference (Col. 5:64-6:7), which teaches an outgoing modem-to-modem call to retrieve stock data. Again, an ancillary use of a telephone line to retrieve data from the

Internet does not create a logical correlation to any and all uses of a telephone. In the particular application of stock data retrieval, there is no incoming call relating to the downloading of stock data and therefore no reason to implement Caller ID. Accordingly, there is insufficient evidence to maintain the rejections and they should be reversed.

**The Examiner's Answer (p. 54), regarding claim 3, is improper because analog-to-digital conversion is not a frequency-based conversion.**

The Examiner's rejection requires that the Board hold that analog-to-digital conversion is a frequency-based conversion. The goal of an analog to digital conversion is to convert a signal in the analog domain to a signal in the digital domain. This conversion maintains frequency-based aspects of the signal. Accordingly, an analog to digital conversion is an express example of a non-frequency-based change that is supported by Appellant's specification. There is no evidence that the skilled artisan would view an analog-to-digital conversion as a frequency-based conversion. Thus, the Examiner's hypothetical assertions regarding the possible existence of other embodiments is not relevant to whether or not there is support for non-frequency-based embodiments. The rejections that rely upon this unsupported conclusion are therefore improper and should be reversed.

**The Examiner's Answer (p. 54), regarding claim 5, is improper because: communication on different channels does not require different frequencies.**

The Examiner's rejection requires that the Board hold that channels can only be implemented using different frequencies. There is no support for this conclusion. It is unclear why the Examiner believes that the term "channels" can refer only to different frequencies and Appellant's specification has not been shown to make such a claim. Communications on different channels can include, for example, communications in different time slots. Accordingly, the skilled artisan would not interpret the term "channels" to only be directed toward different frequencies of communication. The rejections that rely upon this unsupported conclusion are therefore improper and should be reversed.

In view of above facts and the incorrect statements of the Examiner, the improper nature of the rejections becomes clear. The impropriety can be shown on several levels and for several different reasons, some of which are discussed herein and others of which are discussed in the underlying Appeal Brief. For the aforementioned reasons, and those presented in the Appeal Brief, the rejections are improper and should be reversed.

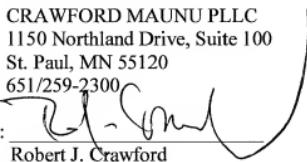
**IV. Conclusion**

In view of the above, and the underlying Appeal Brief, Appellant submits that the rejections of claims 1-75 are improper and therefore requests reversal of the rejections as applied to the appealed claims and allowance of the entire application.

Authority to charge the undersigned's deposit account was provided on the first page of this brief.

Respectfully submitted,

CRAWFORD MAUNU PLLC  
1150 Northland Drive, Suite 100  
St. Paul, MN 55120  
651/259-2300

By: 

Robert J. Crawford  
Reg. No. 32,122  
Shane O. Sondreal  
Reg. No. 60,145

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